

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P893869

Luminaire Tested: 4MB-7HL-RFLW-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893869
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-RFLW-UNV-L930
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 3000K
Light Source: -
Ballast/Driver: -

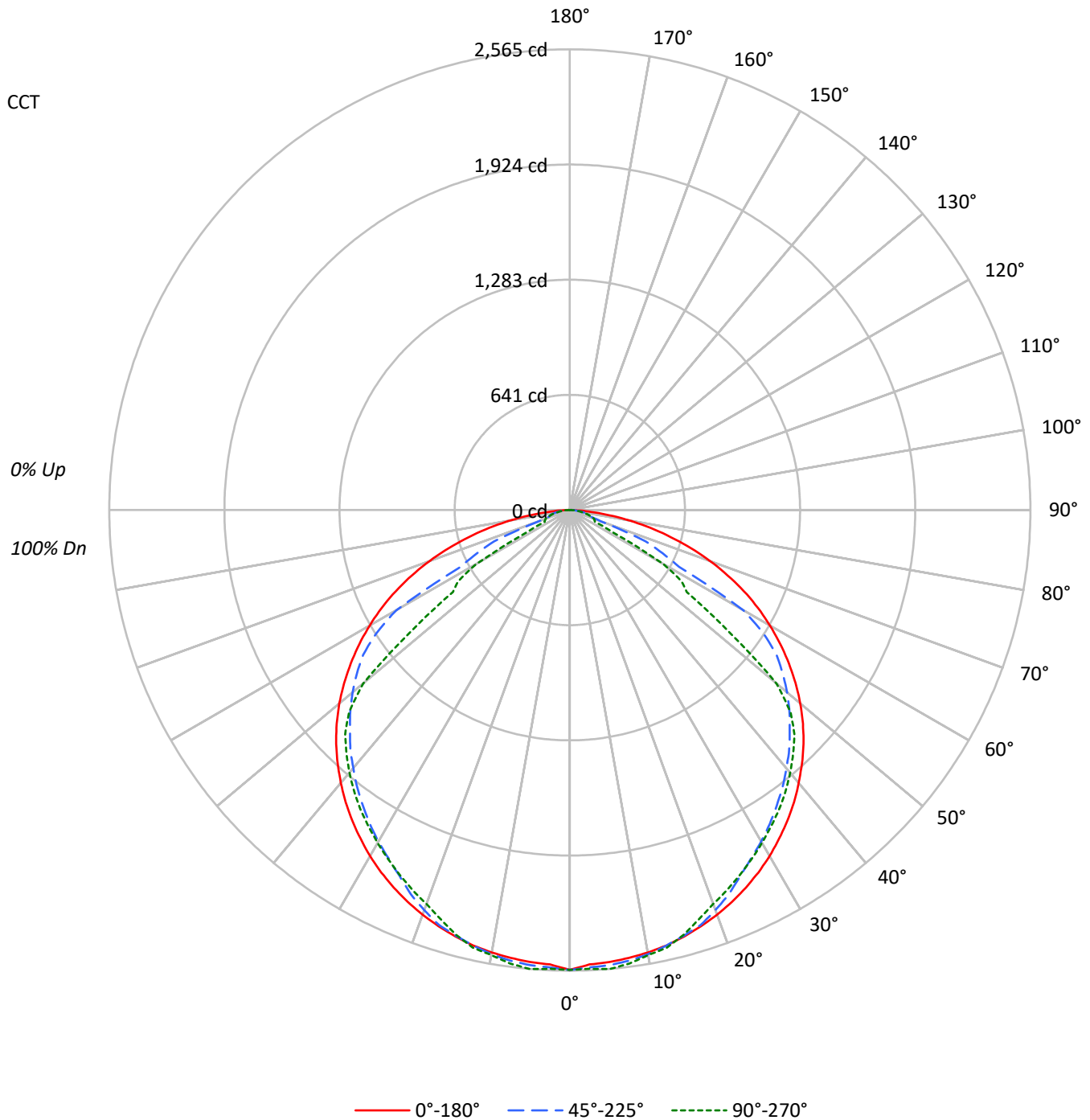
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6674.0 lumens
Efficiency: N/A
Efficacy: 128.8 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.25 / 1.38
Luminous Opening: Rectangular (W 0.21' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 51.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	93	87	82	98	91	85	81	88	83	79	85	81	77	82	78	75	75	75	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	65	65	65	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	56	56	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	49	49	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	43	43	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	38	38	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	34	34	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	31	31	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	28	28	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33242	33242	33242
5°	32937	33154	33431
10°	32986	33110	33173
15°	33058	32983	32909
20°	33141	32759	32258
25°	33231	32181	32112
30°	33358	31962	32091
35°	33478	31840	32228
40°	33619	31801	32362
45°	33800	31786	32496
50°	33851	31906	30360
55°	33702	31810	18002
60°	33416	28990	15613
65°	32870	17526	4726
70°	31569	6948	5422
75°	29249	5699	5539
80°	25305	6020	5190
85°	17983	5647	4931

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 33851 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.5	3.6
10°-20°	694.4	10.4
20°-30°	1049.4	15.7
30°-40°	1280.4	19.2
40°-50°	1354.4	20.3
50°-60°	1121.8	16.8
60°-70°	623.6	9.3
70°-80°	252.8	3.8
80°-90°	54.5	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1986.4	29.8
0°-40°	3266.8	48.9
0°-60°	5743.1	86.1
0°-90°	6674.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6674.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2560	2560	2560	2560	2560	
5°	2527	2572	2544	2547	2565	240
15°	2459	2497	2454	2452	2448	695
25°	2319	2336	2246	2232	2241	1070
35°	2112	2086	2009	2016	2033	1322
45°	1841	1746	1731	1752	1770	1419
55°	1489	1388	1405	964	795	1330
65°	1070	981	570	192	154	1055
75°	583	325	114	112	110	616
85°	121	40	38	35	33	152
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2560.0	2560.0	2560.0	2560.0	2560.0
2.5°	2532.4	2576.6	2549.0	2554.5	2556.9
5°	2526.9	2571.9	2543.5	2547.4	2564.8
7.5°	2515.1	2560.8	2530.9	2533.2	2546.6
10°	2501.7	2543.5	2511.1	2507.2	2515.9
12.5°	2483.5	2521.4	2483.5	2485.1	2496.1
15°	2459.1	2496.9	2453.5	2452.0	2448.0
17.5°	2429.9	2465.4	2422.8	2397.5	2388.9
20°	2398.3	2425.9	2370.7	2332.1	2334.4
22.5°	2360.5	2384.1	2314.7	2279.2	2289.4
25°	2319.4	2336.0	2246.1	2231.9	2241.3
27.5°	2274.5	2287.1	2186.9	2183.7	2191.6
30°	2224.8	2229.5	2131.7	2130.1	2140.3
32.5°	2169.5	2161.6	2072.5	2074.1	2087.5
35°	2111.9	2085.9	2008.6	2016.5	2033.1
37.5°	2051.2	2004.6	1945.5	1955.7	1973.9
40°	1983.3	1920.2	1876.1	1891.8	1909.2
42.5°	1913.9	1831.9	1809.0	1824.0	1840.6
45°	1840.6	1745.9	1730.9	1752.2	1769.6
47.5°	1760.9	1661.5	1659.1	1675.7	1667.8
50°	1675.7	1573.9	1579.4	1557.3	1502.9
52.5°	1584.2	1483.2	1494.2	1398.8	1130.5
55°	1488.7	1387.7	1405.1	964.1	795.2
57.5°	1390.9	1289.9	1278.8	737.6	736.9
60°	1286.7	1190.5	1116.3	651.6	601.2
62.5°	1181.8	1087.1	685.6	490.7	276.1
65°	1069.8	980.6	570.4	191.7	153.8
67.5°	952.2	872.5	456.8	144.4	149.9
70°	831.5	760.5	183.0	139.6	142.8
72.5°	708.5	587.0	121.5	129.4	129.4
75°	583.0	325.0	113.6	112.0	110.4
77.5°	458.4	217.7	99.4	92.3	89.9
80°	338.4	78.1	80.5	71.8	69.4
82.5°	224.1	60.7	57.6	52.1	50.5
85°	120.7	40.2	37.9	34.7	33.1
87.5°	43.4	20.5	20.5	16.6	15.0
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	24.85	26.42	25.22	26.74	27.05	20.84	22.41	21.21	22.73	23.04
	3H	26.86	28.27	27.24	28.59	28.95	20.97	22.38	21.35	22.71	23.07
	4H	27.47	28.79	27.87	29.14	29.51	21.09	22.41	21.49	22.76	23.14
	6H	27.87	29.09	28.28	29.45	29.84	21.20	22.42	21.61	22.78	23.17
	8H	27.99	29.15	28.41	29.54	29.94	21.23	22.39	21.66	22.78	23.18
	12H	28.06	29.17	28.49	29.55	29.98	21.26	22.37	21.69	22.75	23.18
4H	2H	24.98	26.30	25.38	26.65	27.03	21.57	22.89	21.97	23.23	23.61
	3H	27.14	28.23	27.55	28.63	29.03	21.76	22.85	22.17	23.25	23.65
	4H	27.80	28.77	28.23	29.19	29.63	21.92	22.90	22.35	23.31	23.75
	6H	28.24	29.09	28.70	29.53	29.99	22.08	22.93	22.54	23.38	23.83
	8H	28.38	29.17	28.84	29.62	30.09	22.14	22.93	22.60	23.37	23.84
	12H	28.49	29.19	28.97	29.67	30.14	22.18	22.89	22.66	23.37	23.84
8H	4H	27.73	28.52	28.19	28.97	29.43	22.19	22.98	22.65	23.43	23.89
	6H	28.17	28.83	28.67	29.32	29.80	22.40	23.05	22.89	23.54	24.02
	8H	28.32	28.91	28.83	29.42	29.91	22.48	23.07	22.99	23.58	24.07
	12H	28.45	28.98	28.96	29.47	30.03	22.57	23.09	23.08	23.58	24.14
12H	4H	27.70	28.41	28.19	28.89	29.36	22.20	22.91	22.69	23.39	23.86
	6H	28.13	28.72	28.65	29.23	29.72	22.41	23.01	22.93	23.51	24.00
	8H	28.30	28.83	28.81	29.32	29.88	22.54	23.06	23.05	23.55	24.12